

REMARKS

Claims 1-50 are currently pending in this application.

Claims 1-46 stand rejected and applicant has added claims 47-50.

In the Office Action, the Examiner rejected claims 1-46 under 35 U.S.C. Section 103(a) as being obvious over Randle (US Patent No. 6,263,047) in view of Kochan (US Patent No. 6,104,197). Applicants respectfully traverse the rejection.

According to the present invention, an indirect method of qualifying a line for DSL service using a single end of the line is taught. A plant map (loop configuration) of the communication line is determined from measurements obtained through such instruments as a TDR at one end of the loop without requiring any test device at the other end of the loop. A transfer function (insertion loss) is derived from the plant map. The transfer function is then analyzed to determine whether the loop can support a DSL service.

This feature is recited in claim 1 as "measuring . . . at one end of the at least one communication line", "determining a plant map of the at least one communication line", "determining a transfer function representative of the plant map", and "analyzing the transfer function so as to qualify the at least one communication line." As can be appreciated, the single ended testing feature of the present invention provides many

advantages including substantial cost savings and efficient testing.

In the Office Action, the Examiner cites Randle as disclosing use of a TDR (time domain reflectometer) to determine a loading pattern (i.e., bridge taps) of a communication line. The Examiner appears to cite Kochan as disclosing use of a TDR to acquire various plant map data other than bridge taps. The Examiner then concludes that Kochan can be combined with Randle so that "all events in the acquired waveform data may be detected and characterized". Although Applicant is somewhat confused by the Examiner's statement, Applicant assumes that the Examiner is citing Kochan as teaching the step of measuring characteristic parameters and determining plant map data as recited in claim 1.

Applicant submits that even if the Examiner's statement is true and even if the combination is suggested, it still does not produce the combination of steps as recited in claim 1 because neither reference analyzes the "transfer function" to "qualify the at least one communication line" as recited in claim 1.

To the contrary, Kochan is solely concerned with increasing the sensitivity of the TDR when it is used to measure low return signals (see col. 3, lines 1-12). The improved TDR sensitivity in Kochan comes from analyzing the return signal at different

gains using a variable gain receiver (see col. 3, lines 45-50). Moreover, Kochan is not concerned with a digital subscriber line and clearly not with analyzing a TDR signal to "qualify" the line for xDSL use.

In the Office Action at page 3, lines 11-13, the Examiner readily agreed that Randle is only concerned with using a TDR to determine the bridge tap locations. Thus, the combination of Randle and Kochan, at best, teaches a more sensitive TDR for determining the bridge tap locations. Applicant submits that none of the cited references, either individually or in combination, teach or suggest analyzing a transfer function of a communication line for xDSL qualification.

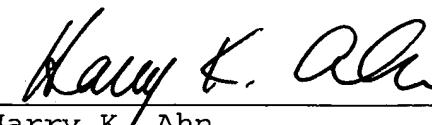
Independent claims 23 and 38 similarly recite respectively "the controller device includes a means for indicating whether the communication line to be tested is qualified for xDSL use" and "controller is formed to indicate whether the communication line under test is qualified for xDSL use". As such these claims are similarly considered by application to define patentable subject matter for the same reasons discussed above for independent claim 1.

Claims 2-22, 24-37 and 39-46 are also considered to be patentable by virtue of their respective dependency from independent claims 1, 23 and 38.

Applicant has added new claims 47-50. Similar to the above discussed independent claims, independent claim 47 recites "analyzing the transfer function so as to qualify the wire communication line for xDSL use". As such, claim 47 and dependent claims 48-50 are considered by application to be allowable over the art of record for the same reasons as discussed above.

Based upon the above amendments and remarks, applicants respectfully request reconsideration of this application and its early allowance. Should the Examiner feel that a telephone conference with applicants' attorney would expedite prosecution of this application, the Examiner is urged to contact him at the number indicated below.

Respectfully submitted,


Harry K. Ahn
Reg. No. 40,243
REED SMITH LLP
599 Lexington Avenue
29th Floor
New York, NY 10022-7650
(212) 521-5402
Attorney for Applicants